AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A catheter system comprising:

a catheter body having an exterior surface and including

an ultrasound transducer having an external side between a first end and a second end,

a first binding medium adjacent to the first end of the ultrasound transducer, and

a second binding medium adjacent to the external side of the ultrasound transducer, the second medium being harder that the first medium.

2. **(Currently Amended)** The system of claim 1, wherein the first binding medium is more flexible than the second medium.

3. **(Currently Amended)** The system of claim 1 wherein a transducer sheath is positioned over the ultrasound transducer and the second binding medium occupies a volume between the transducer sheath and the external surface of the catheter body.

4. **(Currently Amended)** The catheter of claim 1 wherein an assembly sheath is positioned over the ultrasound transducer and the second binding medium occupies a volume between the ultrasound transducer and the assembly sheath.

5 – 8 **(Cancelled)**.

9. **(Currently Amended)** The system of claim 1, wherein a catheter sheath defines at least a portion of the external surface of the catheter body and the second binding medium occupies a volume between the catheter sheath and the ultrasound transducer.

10. **(Currently Amended)** The system of claim 1, wherein:

the first binding medium is positioned between the second binding medium and the external surface of the catheter body.

11. **(Original)** The system of claim 1, wherein the catheter body includes a second ultrasound transducer having a side between a first end and a second end.

12. **(Cancelled)**

13. **(Currently Amended)** The system of claim 1, wherein the second binding medium is at least 3 times harder than the first binding medium.

14. **(Currently Amended)** The system of claim 1, wherein the second binding medium is about 4 to 5 times harder than the first binding medium.

15. **(Currently Amended)** The system of claim 1, wherein the first binding medium has a hardness of at least about 10 Shore D.

16–20 **(Cancelled)**.

21. **(Original)** The system of claim 1, wherein the catheter body includes a second ultrasound transducer having a side between a first end and a second end.

22. **(Currently Amended)** The system of claim 21, wherein the first binding medium occupies a volume between the ultrasound transducer and the second ultrasound transducer.

23. **(Currently Amended)** The system of claim 22, wherein the second binding medium is positioned between the side of the second ultrasound transducer and the external surface of the catheter body.

24. **(Original)** The system of claim 1, wherein the ultrasound transducer is positioned over an elongated body.

25. **(Currently Amended)** The system of claim 24, wherein the catheter body includes a second elongated body coupled with the elongated body and the first binding medium occupies a volume between the ultrasound transducer and the second elongated body.

26. **(Currently Amended)** The system of claim 24, wherein the catheter body includes a terminal body coupled with the elongated body and the first binding medium occupies a volume between the ultrasound transducer and the terminal body.

27. **(Previously Amended)** The system of claim 1, wherein a lumen sized to receive a guidewire extends longitudinally through the catheter body.

28. **(Currently Amended)** A method of fabricating a catheter body, comprising:

providing an ultrasound transducer having a side between a first end and a second end;

positioning the ultrasound transducer over an elongated body having an external surface;

forming a first binding medium adjacent the first end of the ultrasound transducer; and

forming a second binding medium adjacent to the side of the ultrasound transducer, the second binding medium being more transmissive of ultrasound energy than the first binding medium.

29. **(Currently Amended)** The method of claim 28, wherein the first binding medium is more flexible than the second binding medium.

30. **(Currently Amended)** The method of claim 28, wherein delivering the second binding medium includes

positioning an assembly sheath over the ultrasound transducer, and

delivering the second binding medium into a volume between the ultrasound transducer and the assembly sheath.

31. **(Currently Amended)** The method of claim 30, wherein delivering the first binding medium includes

positioning a catheter sheath over the assembly sheath and delivering the first binding medium into a volume between the assembly sheath and the catheter sheath.

32. **(Currently Amended)** The method of claim 28, wherein delivering the second binding medium includes

positioning a transducer sheath over the ultrasound transducer,

positioning an assembly sheath over the transducer sheath, and

delivering the second binding medium into a volume between the transducer sheath and the external surface of the catheter body.

33. **(Currently Amended)** The method of claim 28, wherein delivering the second binding medium includes

positioning a catheter sheath over the ultrasound transducer, and

delivering the second binding medium into a volume between the ultrasound transducer and the catheter sheath.

34. **(Currently Amended)** The method of claim 28, wherein delivering the first binding medium includes

delivering the first binding medium into a volume between the external surface of the elongated body and the catheter sheath.

35. **(Currently Amended)** The method of claim 28, wherein the second binding medium is harder than the first binding medium.

36. **(Currently Amended)** The method of claim 28, wherein the second binding medium is at least 3 times harder than the first binding medium.

37. **(Currently Amended)** The method of claim 28, wherein the second binding medium is about 3 to 5 times harder than the first binding medium.

38. **(Currently Amended)** The method of claim 28, wherein the first binding medium has a hardness of at least about 10 Shore D.

39. **(Currently Amended)** The method of claim 28, wherein the first binding medium has a hardness of about 20 to 40 Shore D.

40. **(Currently Amended)** The method of claim 28, wherein the second binding medium has a hardness of at least 65 shore D.

41. **(Currently Amended)** The method of claim 28, wherein the second binding medium has a hardness from about 65 to about 120 Shore D.

42. **(Currently Amended)** The method of claim 28, wherein the first binding medium has a hardness of at least 10 and the second binding medium has a hardness of at least 65 Shore D.

43. **(Currently Amended)** The method of claim 28, wherein the first binding medium has a hardness from about 20 to about 40 Shore D and the second binding medium has a hardness from about 80 to about 100 Shore D.

44. **(Original)** The method of claim 28, further comprising:

positioning a second ultrasound transducer over the elongated body, the second ultrasound transducer having a side between a first end and a second end.

45. **(Currently Amended)** The method of claim 44 wherein forming the first binding medium includes delivering the first binding medium into a volume between the ultrasound transducer and the second ultrasound transducer.

46. **(Currently Amended)** The method of claim 39, further comprising:

forming the second binding medium adjacent to the side of the second ultrasound transducer.

47. **(Original)** The method of claim 28, further comprising:

coupling the elongated body with a second elongated body.

48. **(Previously Amended)** The method of claim 47, wherein coupling the elongated body with a second elongated body includes aligning a lumen within the elongated body with a lumen within the second elongated body.

49. **(Currently Amended)** The method of claim 47, wherein forming the first binding medium includes

delivering the first binding medium into a volume between the ultrasound transducer and the second elongated body.

50. **(Original)** The method of claim 28, further comprising:

coupling the elongated body with a terminal body.

51. **(Currently Amended)** The method of claim 50, wherein forming the first binding medium includes delivering the first binding medium into a volume between the ultrasound transducer and the terminal body.

52. **(Original)** The method of claim 50, wherein coupling the elongated body with a terminal body includes aligning a lumen within the elongated body with a lumen within the terminal body.

53. **(Currently Amended)** A catheter system comprising:

a catheter body having an exterior surface and including

an ultrasound transducer having an external side between a first end and a second end,

a first binding medium adjacent to the first end of the ultrasound transducer and having a hardness of at least about 10 Shore D, and

a second binding medium adjacent to the external side of the ultrasound transducer, the second medium being harder that the first binding medium.